

ONTARIO MINISTRY OF ENVIRONMENT
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AIR QUALITY MONITORING REPORTS 1979 Volume 1

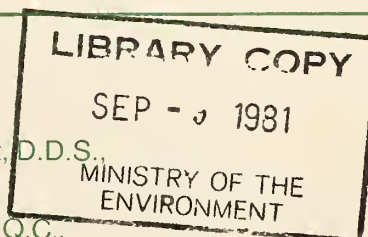


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MOE



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Hon. Harry C. Parrott, D.D.S.,
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Introduction

This report, Volume 1, contains a summary of 1979 air quality data obtained by continuous monitoring instruments operated by the Ministry of the Environment at 108 locations across Ontario including a 6-site network run as part of the Nanticoke Environmental Monitoring Program survey. In addition, a summary of sulphur dioxide data from 44 stations operated by Ontario Hydro in the vicinity of their power generating stations has been included.

As in previous years, the summaries of hourly data are given in the remaining four volumes of this report: Volume 2, sulphur dioxide data from 76 stations; Volume 3, soiling index data from 60 stations; Volume 4, carbon monoxide, hydrocarbons (total and reactive), ozone, and total reduced sulphur from 23, 17, 31, and 14 stations respectively; Volume 5, the oxides of nitrogen NO, NO₂, and NO_x from 27, 23, and 23 stations respectively.

Sampling Stations

Table 1 lists the stations in the Ontario monitoring network with continuous sampling instruments. The first seven columns give the region in which the monitor is located, the station identification number and address, its bearing on the Universal Transverse Mercator (UTM) Grid, the height of the station above mean sea level, and the height of the air intake above ground. The last seven columns indicate which of the pollutants, total reduced sulphur (TRS), sulphur dioxide (SO₂), soiling index (COH), ozone (O₃), carbon monoxide (CO), hydrocarbons — total or reactive — (HC), nitrogen dioxide (NO₂), nitric oxide (NO), and nitrogen oxides (NO_x), are being monitored at that station.

The largest number of stations in a region is 27 in the Central Region. The most monitoring instruments (107) are also found in the Central Region. Figure 1 shows the general location of the sampling stations across Ontario as well as the number in each region and city. Figures 2, 3, 4, and 5 show the locations of the sampling stations in Toronto, Hamilton, the Sudbury area, and Windsor respectively.

Data from the Nanticoke Environmental Monitoring Program (NEMP) survey are provided by the NEMP project team of the Special Studies Unit of the Technology Development and Appraisal Section of the Air Resources Branch who are responsible for the data acquisition, validation, and processing of data for this report.

The sulphur dioxide data from the Ontario Hydro monitoring program around each generating station are provided by the Environmental Protection Department, Central Thermal Services, Thermal Generation Division, who are responsible for the acquisition, validation and processing of data used in this report.

Criteria for Desirable Ambient Air Quality

Table 2, outlines the Criteria for Desirable Air Quality in Ontario for those contaminants reported in this report.

The criteria are given in units of parts per million by volume and micrograms per cubic meter of air for the sampling time appropriate for each contaminant; 1 hour, 8 hours, 24 hours, or 1 year. The unit for soiling index, a measure of suspended particulate matter, is Coefficient of Haze (COH) per 1000 feet of air sampled.

These criteria serve as a convenient yardstick by which the Province may estimate its success in achieving goals for desirable ambient air quality.

1979 Measurements

Acquisition and processing of air quality data in Ontario is the responsibility of the Air Quality and Meteorology Section of the Air Resources Branch. The instrumentation, however, has been installed and maintained by the Technical Support Group in each of the six regional offices since the Ministry decentralized many of its operations in 1974.

Data are acquired in two ways. Data from stations in major population centres and those areas which have a publicized Air Pollution Index are telemetered in real-time to the central data acquisition facility in Toronto where they are digitized, stored on magnetic tape, and then computer-processed. All other data are recorded locally on analogue charts which are later read and digitized by the Data Analysis Group in Toronto and then processed by computer in the same way as the telemetered data.

In this Volume, the annual summary of hourly readings for each station and contaminant is reported in a single line giving the number of days on which valid data were monitored, the percentile distribution, the arithmetic mean, the maximum 1-hour and 24-hour readings, and, where appropriate, the number of times the air quality criteria were exceeded.

Only those stations reporting more than 273 days of valid data in 1979 are considered to have an adequate sample to determine a representative annual mean. For those stations with fewer than 274 valid days, the reported arithmetic mean cannot be considered as representative for the comparison with the annual mean criterion for sulphur dioxide or soiling index. Such stations are indicated with INS under the 1 Year Criteria heading.

Analyses of Data

Sulphur Dioxide (see Table 3)

Inventoried emissions of sulphur dioxide in 1979 were approximately 1.5 million tonnes, of which 0.85 million tonnes were emitted in the primary smelting of nickel, copper and iron in the Sudbury and Wawa areas. (Note that SO₂ emissions were reduced in 1979 due to a strike at INCO Ltd., the largest smelter.) Thermal generating stations are the largest sources of SO₂ in southern Ontario accounting for 0.42 million tonnes annually. The remaining 0.23 million tonnes are emitted by industrial, commercial, and residential fuel users as well as refineries, coke ovens, and other industrial operations. It should be noted, however, that community air quality is, on the long term, affected more by small, nearby sources emitting at low elevations than by large and distant sources emitting from tall stacks.

Of the 77 stations in the Ontario network only one recorded an annual mean above the 1-year criterion of 0.02 ppm: Happy Valley, Falconbridge — 0.022 ppm. (Note that although the calculated average at 2037 Pine, Burlington exceeded the criterion, the sample size was too small for a representative annual mean.) Thirty-three stations reported exceedences of the 1-hour criterion of 0.25 ppm; the 24-hour criterion of 0.10 ppm was exceeded at 13 stations.

Most of those stations exceeding the 1-hour and 24-hour criteria on numerous occasions were located near major sulphur dioxide sources. This includes the station with the highest annual average, — the highest 24-hour average (0.49 ppm) and the highest 1-hour average (1.86 ppm) — the Happy Valley, Falconbridge site.

Suspended Particulate Matter

Soiling Index (see Tables 4 and 5)

Traditionally, the public has identified air pollution with black or dark smoke. Improved combustion technology and an increase in the use of fuels other than coal has eliminated black smoke as a major pollutant. Fine particles of smoke from combustion and dust from construction, grinding processes, and transportation constitute what is termed “suspended particulate matter”. The soiling properties of a sample of suspended particulate deposited upon a filter are measured by the reduction of light transmitted through the soiled filter and is related to both the opacity and darkness of the deposit. The evaluation is carried out on 1-hour or 2-hour samples and is known as the soiling index. The unit of measure for soiling index is the Coefficient of Haze (COH) per 1000 feet of air sampled.

The annual average criterion of 0.5 COH/1000 feet was surpassed at five locations: two in Hamilton and three in Toronto. The maximum annual average was recorded at North Park, Hamilton — 0.73 COH/1000 ft.. The 24-hour criterion of 1.0 COH/1000 ft. was exceeded at twenty-three stations, but only five did so more than ten times: North Park, Hamilton (73); Barton-Wentworth, Hamilton (55); Sherbourne/Wilton, Toronto (34); Evans-Arnold, Etobicoke (31); Bathurst-Wilson, North York (30). The maximum 24-hour measurement was 3.1 COH/1000 ft. recorded at both Barton-Wentworth, Hamilton and Evans-Arnold, Etobicoke.

Carbon Monoxide (see Table 6)

In terms of total weight and concentration, carbon monoxide leads all other contaminants in city air. Mobile sources, trucks and automobiles, are almost exclusively responsible. Although pollution control equipment has reduced the output per car, the increase in number of vehicles on many streets has limited the overall reduction.

The highest levels of carbon monoxide were measured at 381 Yonge St. in Toronto. This station, located close to a major traffic artery and within the urban street canyon, measured an annual average of 5.0 ppm, a maximum 8-hour average of 31 ppm, and a 1-hour maximum of 42 ppm. The 8-hour criterion of 13 ppm was exceeded 55 times at this station and the 1-hour criterion of 30 ppm, 28 times. The only other carbon monoxide concentration

to exceed criteria was a 19 ppm, 8-hour average concentration measured at 67 College St., 2nd floor, Toronto.

Hydrocarbons (see Table 7 and 8)

Hydrocarbons are emitted naturally from trees and vegetation; they are also emitted by vehicles, gasoline storage tanks, and filling tanks.

Two types of measurements are made of hydrocarbons in Ontario. The first type uses flame ionization techniques to measure all hydrocarbons and is reported as total hydrocarbons. Methane, however, does not participate in the number of photochemical reactions which form oxidants. Thus, techniques have been developed to remove the methane fraction from the total hydrocarbon measurement. This measurement has been termed reactive hydrocarbons.

No criteria have been set for either total or reactive hydrocarbons in Ontario. The highest annual mean level measured in the total hydrocarbon monitoring network was 2.30 ppm at King-Rectory in London. The maximum annual mean concentration for reactive hydrocarbons was 2.11 ppm at Barton-Wentworth, Hamilton.

Ozone (see Table 9)

Ozone is a naturally occurring constituent of the upper atmosphere. In the lower atmosphere, it is a secondary product of photochemical reaction among reactive hydrocarbons and nitrogen oxides. In the upper atmosphere, ozone plays an important role in the maintenance of life on the ground by absorbing harmful ultra-violet radiation. In the lower atmosphere, however, ozone is detrimental to the health of man and plants as well as enhancing damage to various materials.

Since time is needed for the afore-mentioned photochemical reactions to be completed, ozone is often found some distance from the source of its pollutant precursors. Thus, high concentrations of ozone which occur at rural locations such as Simcoe and Stouffville are not indicative of natural or local sources but the transport and reaction in the presence of adequate sunlight of the ozone precursors from upwind urban sources.

The highest annual average ozone concentrations measured in Ontario were at rural locations: Simcoe (0.028 ppm), Orono (0.027 ppm) and Petrolia (0.027 ppm). The maximum daily average occurred at Long Point Provincial Park (0.198 ppm). All monitoring stations exceeded the Ontario ozone criterion for one hour of 0.080 ppm. The number of exceedences of the criterion in 1979 was much lower than in previous years due to unfavorable weather conditions for ozone formation during much of the summer. Only four stations reported more than one hundred hours in excess of the 1-hour criterion of 0.080 ppm: Orono (187), Long Point Provincial Park (174), Petrolia (137), and Sarnia (130). The highest single hour concentration was measured at Long Point Provincial Park (0.297 ppm).

Total Reduced Sulphur (see Table 10)

The first extensive monitoring of total reduced sulphur

began in Ontario in 1976. Most of the total reduced sulphur may be found in the form of hydrogen sulphide.

In the vicinity of pulp and paper mills and refineries, significant concentrations of mercaptans and other reduced sulphurs may be present, however.

Maximum concentrations of total reduced sulphur occurred at Portage-Church, Fort Frances for the annual mean (10.2 ppb) and maximum 1-hour concentration (353 ppb). The maximum 24-hour average concentration was 109 ppb at King St., Dryden. Four of the fourteen stations had hourly values which exceeded 100 ppb. No criteria have yet been set for total reduced sulphur although a provisional guideline of 27 ppb for a one-hour average has been proposed in the vicinity of kraft paper mills. Ten stations recorded at least one hour above this guideline.

Oxides of Nitrogen (see Tables 11, 12, and 13)

The oxides of nitrogen (NO and NO₂) are generated by natural as well as anthropogenic sources. Nitrogen and oxygen, which are the principal constituents of the atmosphere, combine during high temperature combustion to form nitrogen oxides (NO_x). The main sources of NO_x are automobile exhausts, power plants, incinerators and chemical processes.

No evidence exists that nitric oxide (NO) at the concentrations measured in the atmosphere has any direct adverse effect on health and welfare. Photochemical oxidation of nitric oxide to nitrogen dioxide (NO₂), however, does occur under certain conditions, and nitrogen dioxide is known to affect health as well as visibility. The nitrogen oxides also play an important role in the photochemical reactions involving ozone and other oxidants.

The maximum annual mean NO₂ concentrations was reported at Evans-Arnold, Etobicoke (0.037 ppm). Several stations reported annual means close to this concentration: Bathurst-Wilson, North York (0.036 ppm), North Park, Hamilton (0.034 ppm), Sherbourne-Wilton, Toronto (0.034 ppm), 467 University Ave., Windsor (0.033 ppm). The maximum 24-hour average was recorded at Bathurst-Wilson, North York — 0.11 ppm, the only period over the 24-hour criterion for NO₂ of 0.10 ppm. The 1-hour criterion of 0.20 ppm was exceeded only once, at St. Catharines (0.22 ppm).

The maximum NO annual concentration also occurred at Bathurst-Wilson, North York (0.114 ppm) as did the

maximum 24-hour average (0.45 ppm) and the maximum 1-hour concentration (0.92 ppm).

Nitrogen oxides, essentially the sum of NO and NO₂ concentrations, were highest at sites adjacent to high-traffic-density highways. The maximum annual average (0.148 ppm) occurred at Bathurst-Wilson, North York. The maximum 1-hour concentration (1.00 ppm) was reported at both Lawrence-Kennedy, Scarborough and Evans-Arnold, Etobicoke. The maximum 24-hour average of 0.50 ppm occurred at Barton-Wentworth, Hamilton and Bathurst-Wilson, North York.

Ontario's Air Pollution Index

An Air Pollution Index (API) based upon the 24-hour average concentration of sulphur dioxide and suspended particulate matter has been in use in Ontario since March, 1970. Air Pollution Index stations were established in Toronto and Hamilton in 1970, Sudbury, Windsor, and Happy Valley in 1971, Welland and Niagara Falls in 1974, Coniston in 1975, New Sudbury in 1976, Sarnia in 1977, and St. Catharines in 1979. The station in Happy Valley was discontinued in 1975 and the Welland station was closed in 1978. The API at all stations have a common basis; at an API of 32, the desirable air quality criteria for sulphur dioxide and soiling index on a 24-hour average are exceeded. When the API exceeds 57, adverse health effects may increase in incidence, especially for the elderly and those with respiratory problems.

At an API of 32 with adverse weather conditions expected for the next 6 hours, suspected offending industries are alerted and may be asked to cut-back on their operations. At an API of 50 with adverse conditions expected for 6 hours, the Minister may order curtailment of industrial operations, and a shut-down may be ordered by the Minister if the Index exceeds 100.

The Hamilton station was the only one to exceed an API reading of 50 reaching a maximum of 55 on December 22. This station reported levels of 32 or above on 23 occasions. The Toronto and Sarnia API's each reached an advisory level of 32 or more on two occasions. No other stations were on advisory during 1979.

The history of the Index stations, the maximum level and the number of times the Index equalled or exceeded 32 and 50 for the years 1970 to 1979 are given in Table 14.

Table 1/1979 Stations with Continuous Sampling Instrumentation
(Pollutant data abstracted hourly or two-hourly)

REGION	STATION NUMBER	NAME OF STATION	UTM GRID		SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	POLLUTANT MONITORED								
			EAST	NORTH			TRS	SO ₂	COH	O ₃	CO	HC	NO ₂	NO	NOX
SOUTH WEST	10001	College of Agric. Tech., Huron Park	04600	47931	243	5				x					
	12008	467 University Ave. Windsor	03316	46867	183	11		x	x	x	x	x	x	x	x
	12013	Wyandotte St. Windsor	03358	46874	183	6		x							
	12015	Hwy 18-Prospect Windsor	03283	46833	175	4		x							
	12016	College-South St. Windsor	03290	46841	183	4		x	x						
	12032	Morton Dock Windsor	03271	46817	177	4		x							
	13021	MOE Pump. Stn. Middle Road Merlin	03991	46776	190	3				x					
	14004	Hydro SS Concession 14/15 Courtright	03808	47343	183	3		x							
	14016	Lambton G.S. Hwy. 40 Courtright	03793	47397	180	4		x							
	14049	156 Victoria St. Sarnia	03854	47584	183	4		x							
	14062	242 Indian Rd. S., Sarnia	03878	47578	183	4	x	x							
	14064	Centennial Park Front St/CN Tracks Sarnia	03854	47592	182	3		x	x	x	x	x	x	x	x
	14118	PUC Water Pump Stn Hwy. 21 Petrolia	04027	47564	206	4				x					
	14901	Riverside Blvd. Mobile Stn. Corunna	03813	47481	194	3		x		x		x		x	
	15001	King-Rectory London	04818	47595	259	4		x	x	x	x	x	x	x	x
	15003	362 Dundas St. London	04801	47590	251	17			x						
	18001	MacKenzie RR2 Tiverton	04541	49030	220	4	x	x		x					
	18007	Concession Rd. 2 Lot A Tiverton	04541	49053	192	4	x	x		x					
WEST CENTRAL	21006	Post Office Brantford	05597	47763	221	16		x	x						
	22071	Experimental Farm Simcoe	05597	47449	236	4		x	x	x			x	x	x
	22086	Cheapside Rd. 3 Km S of Hwy 3 Nanticoke	05821	47472	206	5		x	x				x	x	x
	26001	Public Utilities Substation Waterloo	05397	48128	336	2			x						
	26029	Edna/Frederick St. Kitchener	05427	48116	325	5		x	x	x	x		x	x	x
	27013	PS Victoria/Leader Niagara Falls	06570	47752	175	5		x	x						
	27037	North/Geneva St. St. Catharines	06431	47805	107	5		x	x	x	x	x	x	x	x
	27043	McAdam Park Centre/Davis St. Thorold	06470	47736	175	4		x							
	27046	Public Works, 200 m S Beaverdam Rd. Thorold	06460	47742	180	5		x							

Table 1/1979 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM GRID EAST	UTM GRID NORTH	SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	POLLUTANT MONITORED								
							TRS	SO ₂	COH	O ₃	CO	HC	NO ₂	NO	NOX
WEST CENTRAL	27048	Niagara Public Works Dominion Rd.													
		Fort Erie	06670	47500	175	2		x							
	27049	Murray/Buchanan Ave.													
		Niagara Falls	06561	47716	195	5		x	x						
	29001	Hughson-Main													
		Hamilton	05918	47894	99	9			x						
	29008	North Park													
		Hamilton	05984	47927	79	3	x	x	x			x	x	x	x
	29009	Kenilworth													
		Hamilton	05967	47884	92	9			x						
	29011	Burlington/Leeds													
		Hamilton	05954	47905	79	5			x						
	29012	Burlington-Wellington													
	Hamilton	05931	47914	84	4			x							
29015	Merrick St.														
	Hamilton	05917	47900	92	17			x							
29017	Chatham-Frid														
	Hamilton	05898	47896	99	5			x							
29025	Barton-Wentworth														
	Hamilton	05939	47900	92	4	x	x	x	x	x	x	x	x	x	
29067	450 Hughson St.														
	Hamilton	05925	47913	84	5			x							
CENTRAL	31001	67 College St. 5th Floor													
		Toronto	06300	48352	104	20		x	x	x	x	x	x	x	x
	31049	Mission, 381 Yonge Street, Toronto													
			06304	48351	91	4					x				
	31090	67 College St. 2nd Floor, Toronto													
			06300	48352	104	4					x				
	31105	Sherbourne/Wilton													
		Toronto	06317	48338	76	5		x	x	x	x		x	x	x
	33003	Lawrence-Kennedy													
		Scarborough	06389	48452	168	3		x	x	x	x	x	x	x	x
	33019	Met. Branch. Scar.													
		Bluffs, Scarborough	06422	48411	152	3		x	x						
	34002	Science Centre													
		Don Mills, North York	06338	48419	107	9		x	x	x	x	x	x	x	x
	34007	Bathurst-Wilson													
		North York	06261	48437	214	2		x	x		x	x	x	x	x
	35003	Elmcrest Rd.													
		Etobicoke	06142	48338	152	4		x	x	x	x	x	x	x	x
	35005	Queensway Hospital													
		Etobicoke	06149	48293	107	9		x	x						
	35008	22-36th St.													
		Etobicoke	06190	48281	92	2			x						
	35033	Evans-Arnold													
		Etobicoke	06192	48302	107	3		x	x	x	x	x	x	x	x
	35050	MOE Lab.													
		Resources Road													
	Etobicoke	06175	48405	152	18		x	x							
44007	2037 Pine														
	Burlington	05975	47975	79	6		x	x							
44008	Hwy. 2/North Shore Blvd. E.														
	Burlington	05972	47964	270	17		x	x	x						
44010	1298 Rebecca St.														
	Oakville	06053	48078	92	5		x	x	x	x	x	x	x	x	
45024	206 Eulalie St.														
	Oshawa	06723	48623	101	1			x							
45025	Ritson Rd./Olive Ave.														
	Oshawa	06724	48624	107	4		x	x	x	x		x	x	x	
45125	Natural Res. Bldg.														
	Orono	06907	48712	149	9				x						
46025	Public Library														
	Mississauga	06115	48257	137	5			x							

Table 1/1979 - Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM GRID EAST NORTH	SITE ELE- VATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	POLLUTANT MONITORED							
						TRS	SO ₂	COH	O ₃	CO	HC	NO ₂	NO NOX
CEN- TRAL	46033	Fire Hall Bramalea	06053	48398	198			x					
	46100	Public School Green Glade Road, Mississauga	06124	48187	92		x	x					
	46110	Queensway West/ Hurontario St. Mississauga	06122	48249	101		x	x	x	x		x	x x
	47041	Fed. Manpower Bldg., 48 Owen St. Barrie	06044	49159	236		x	x					
	48002	MTC Yard Stouffville	06391	48694	259		x	x	x				
	58030	132 King St. Port Hope	07174	48692	82							x	x x
	59006	City Hall 500 George St. Peterborough	07137	49095	198		x	x					
SOUTH EAST	51001	McDonald Gdns Ottawa	04471	50312	61		x	x	x	x		x	x x
	52018	1055 Princess St. Kingston	03788	48990	82			x					
	52020	Churchill Park Napier St., Kingston	03795	48986	82		x	x					
	56051	Memorial Park Cornwall	05208	49846	61	x	x	x	x	x		x	x x
	56068	435 Second St. W. Cornwall	05205	49845	66	x							
NORTH WEST	61010	Lassie/Dickenson Roads Balmertown	04480	56670	381		x						
	61026	56 King St. Dryden	05117	55140	366	x							
	62030	Portage/Church Fort Frances	04708	53838	336	x							
	62032	Cemetery, Coloni- zation Road Fort Frances	04697	53841	336	x							
	63022	Hospital 35 Algoma St. N. Thunder Bay	03356	53672	223		x	x					
	63040	435 James Street Thunder Bay	03302	53607	189		x	x					
	63046	Montreal St. Thunder Bay	03298	53584	191	x							
NORTH EAST	71001	29 Hillcrest Ave. Wawa	06655	53186	305		x						
	71002	Goudreau Algoma District	06835	53578	358		x						
	71022	Sault College Queens Street Sault Ste. Marie	07029	51550	210		x	x					
	71057	Michipicoten Ave. Lot 38 Town of Mission	06625	53110	198		x		x				
	75010	OPP Station North Bay	06197	51305	212		x	x					
	75016	Dept. of Transport Verner	05668	51405	214		x						
	75020	Teacher's College North Bay	06185	51297	206		x	x					
	77001	Penage Sudbury Dist.	04730	51250	250		x						
	77009	Burwash Sudbury Dist.	05144	51228	229		x						

Table 1/1979 – Continued . . .

REGION	STATION NUMBER	NAME OF STATION	UTM GRID EAST	UTM GRID NORTH	SITE ELEVATION ABOVE MEAN SEA LEVEL (METRES)	AIR INTAKE ABOVE GROUND (METRES)	POLLUTANT MONITORED								
							TRS	SO ₂	COH	O ₃	CO	HC	NO ₂	NO	NOX
NORTH EAST	77010	Callum													
		Sudbury Dist.	05270	51525	250	3		x							
	77012	Skead													
		Sudbury Dist.	05186	51678	274	3		x							
	77013	Hanmer													
		Sudbury Dist.	05041	51663	290	3		x							
	77014	Rayside													
		Sudbury Dist.	04930	51600	250	3		x							
	77016	Ash Street													
		Sudbury	04994	51486	290	3		x	x	x	x		x	x	x
	77017	Morgan													
		Sudbury Dist.	04810	51637	274	3		x							
	77018	St. Charles													
		Sudbury Dist.	05449	51343	290	3		x							
	77019	Grassy Lake													
		Sudbury Dist.	05536	51854	259	3		x							
	77023	Happy Valley													
		Falconbridge	05146	51564	288	5		x	x						
	77026	19 Lisgar St.													
		Sudbury	05006	51485	274	14			x						
	77028	Government/Edward													
	Coniston	05118	51480	244	5		x	x							
77052	Lockerby														
	Sudbury Airshed	04999	51444	274	5		x								
77065	Falconbridge Rd.														
	Sudbury	05109	51559	290	5		x								
77066	Temagami														
	Sudbury Airshed	05704	52022	296	5		x								
77067	Chiniguchi														
	Sudbury Airshed	05264	52064	317	5		x								
77075	Kennedy St.														
	New Sudbury	05044	51520	262	5		x	x							
NEMP	22901	100 M S. Hwy 59													
		Long Point Prov. Pk	05502	47138	174	4		x		x	x			x	
	22902	Tyneside/Chippewa Rd.													
		Binbrook West	05914	47746	213	5		x	x	x	x			x	
	22903	Cheapside Rd./Walpole Conc. 5													
		Nanticoke	05821	47472	206	4	x					x			
	22904	Walpole South PS													
		Sandusk Rd.	05794	47434	198	4	x					x			
	22905	Nanticoke													
		Nanticoke Rd/													
	Walpole Conc. 5	05744	47456	198	4	x					x				
22906	Nanticoke														
	Sandusk Rd.														
	Btwn. Walpole Conc. 4/5														
	Sandusk	05787	47458	649	12									x	

Table 2/1979
Criteria for Desirable Air Quality. O. Reg. 872/74

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
	NAME OF CONTAMINANT	UNIT OF MEASUREMENT	AVERAGE AMOUNT CONCENTRATION OR TOTAL AMOUNT OF CONTAMINANT	PERIOD OF TIME	APPROXIMATE EQUIVALENT AT 10° C AND 760 mm Hg PRESSURE
3	Carbon Monoxide	Parts of carbon monoxide per one million parts of air by volume	30	1 hour	36,200 ug/m ³
			13	8 hours	15,700 ug/m ³
16	Nitrogen Dioxide	Parts of nitrogen dioxide per one million parts of air by volume	0.20	1 hour	400 ug/m ³
			0.10	24 hours	200 ug/m ³

Table 2/1979 — Continued . . .

ITEM	COLUMN 1 NAME OF CONTAMINANT	COLUMN 2 UNIT OF MEASUREMENT	COLUMN 3 AVERAGE AMOUNT CONCENTRATION OR TOTAL AMOUNT OF CONTAMINANT	COLUMN 4 PERIOD OF TIME	COLUMN 5 APPROXIMATE EQUIVALENT AT 10°C AND 760 mm Hg PRESSURE
18	Ozone	Parts of ozone per one million parts of air by volume	0.08	1 hour	165 ug/m ³
19	Soiling	Coefficient of Haze per 1000 feet of air	1.0 0.5	24 hours 1 year	
21	Sulphur Dioxide	Parts of sulphur dioxide per one million parts of air by volume	0.25 0.10 0.02	1 hour 24 hours 1 year	690 ug/m ³ 275 ug/m ³ 55 ug/m ³

Table 3/1979 Summary of Data: Sulphur Dioxide (all values in p.p.m.)

Ontario Criteria — 1 Hour Average: 0.25 p.p.m.; 24-Hour Average: 0.10 p.p.m.; 1 Year Average: 0.02 p.p.m.

INS — Indicates insufficient sample size to apply 1 Year average criterion

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
SOUTH WEST	12008	467 University Ave. Windsor	364	.000	.000	.003	.010	.028	.065	.013	.13	.07	NIL	NIL	NIL
	12013	Wyandotte St. Windsor	326	.000	.000	.000	.000	.007	.020	.003	.08	.02	NIL	NIL	NIL
	12015	Hwy. 18—Prospect Windsor	321	.000	.000	.004	.009	.024	.060	.012	.17	.07	NIL	NIL	NIL
	12016	College—South St. Windsor	358	.000	.003	.009	.018	.036	.069	.018	.18	.08	NIL	NIL	NIL
	12032	Morton Dock Windsor	345	.000	.000	.006	.015	.031	.064	.015	.14	.05	NIL	NIL	NIL
	14004	Hydro SS Concession 14/15 Courtright	301	.000	.000	.000	.004	.014	.046	.007	.26	.08	1	NIL	NIL
	14016	Lambton G.S. Hwy 40 Courtright	321	.000	.001	.007	.016	.029	.063	.015	.53	.12	5	1	NIL
	14049	156 Victoria St. Sarnia	272	.000	.000	.001	.009	.040	.148	.016	.31	.12	2	3	INS
	14062	242 Indiana Rd. S. Sarnia	289	.000	.000	.002	.009	.028	.086	.012	.24	.07	NIL	NIL	NIL
	14064	Centennial Park Front St./CN Track Sarnia	353	.000	.000	.005	.011	.037	.135	.017	.32	.13	5	1	NIL
	14901	Riverside Blvd. Mobile Stn. Corunna	187	.000	.000	.000	.009	.040	.128	.016	.33	.12	5	1	INS
	15001	King—Rectory London	340	.000	.000	.001	.006	.014	.035	.007	.09	.05	NIL	NIL	NIL
	18001	MacKenzie, RR2 Tiverton	174	.000	.000	.000	.000	.003	.034	.002	.08	.05	NIL	NIL	INS
	18007	Concession Rd. 2 Lot A Tiverton	170	.000	.000	.000	.000	.000	.011	.001	.12	.01	NIL	NIL	INS
WEST CENTRAL	21006	Post Office Brantford	322	.000	.000	.000	.001	.010	.029	.005	.14	.03	NIL	NIL	NIL
	22071	Experimental Farm Simcoe	318	.000	.000	.002	.007	.016	.039	.009	.17	.07	NIL	NIL	NIL
	22086	Cheapside Rd. 3 Km S of Hwy 3 Nanticoke	339	.000	.000	.001	.007	.017	.054	.009	.31	.06	3	NIL	NIL
	26029	Edna/Frederick St. Kitchener	316	.000	.000	.000	.002	.014	.038	.006	.11	.04	NIL	NIL	NIL
	27013	PS, Victoria/Leader Niagara Falls	196	.000	.000	.004	.009	.019	.048	.011	.11	.05	NIL	NIL	INS
	27037	North/Geneva St. St. Catharines	357	.000	.000	.000	.005	.014	.039	.007	.08	.05	NIL	NIL	NIL

Table 3/1979 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
WEST CENTRAL	27043	McAdam Park Centre/Davis St. Thorold	225	.000	.000	.006	.017	.037	.168	.019	.80	.14	28	2	INS
	27046	Public Works, 200m S Beaverdam Rd. Thorold	347	.000	.000	.000	.008	.023	.087	.011	.54	.09	4	NIL	NIL
	27048	Niagara Public Works Dominion Rd. Fort Erie	155	.000	.000	.005	.010	.019	.038	.011	.10	.03	NIL	NIL	INS
	27049	Murray/Buchanan Ave. Niagara Falls	161	.000	.000	.004	.009	.018	.036	.010	.09	.03	NIL	NIL	INS
	29008	North Park Hamilton	358	.000	.000	.000	.008	.035	.073	.012	.14	.08	NIL	NIL	NIL
	29025	Barton-Wentworth Hamilton	365	.000	.001	.006	.013	.039	.098	.017	.25	.10	NIL	NIL	NIL
CENTRAL	31001	67 College St. 5th Floor Toronto	362	.000	.000	.000	.005	.018	.058	.008	.20	.08	NIL	NIL	NIL
	31105	Sherbourne/Wilton Toronto	331	.000	.000	.000	.007	.019	.080	.009	.24	.09	NIL	NIL	NIL
	33003	Lawrence-Kennedy Scarborough	340	.000	.000	.000	.002	.011	.038	.005	.20	.04	NIL	NIL	NIL
	33019	Met. Branch, Scar. Bluffs Scarborough	236	.000	.000	.001	.007	.019	.055	.009	.22	.11	NIL	1	INS
	34002	Science Centre Don Mills	348	.000	.000	.002	.007	.017	.042	.009	.21	.06	NIL	NIL	NIL
	34007	Bathurst – Wilson North York	362	.000	.000	.003	.008	.021	.059	.011	.17	.06	NIL	NIL	NIL
	35003	Elmcrest Ave. Etobicoke	340	.000	.000	.000	.004	.014	.057	.007	.61	.09	7	NIL	NIL
	35005	Queensway Hospital Etobicoke	314	.000	.000	.003	.008	.019	.050	.010	.38	.06	1	NIL	NIL
	35033	Evans–Arnold Etobicoke	348	.000	.000	.000	.005	.015	.041	.007	.09	.05	NIL	NIL	NIL
	35050	MOE Lab Resources Rd. Etobicoke	345	.000	.001	.006	.012	.026	.072	.014	.26	.06	1	NIL	NIL
	44007	2037 Pine Burlington	70	.002	.008	.015	.021	.033	.074	.022	.12	.05	NIL	NIL	INS
	44008	Hwy 2 /North Shore Blvd.E. Burlington	233	.000	.000	.000	.004	.017	.060	.008	.35	.06	2	NIL	INS
	44010	1298 Rebecca St. Oakville	356	.000	.000	.001	.007	.017	.046	.009	.13	.06	NIL	NIL	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	284	.000	.000	.000	.007	.024	.059	.010	.15	.10	NIL	NIL	NIL
	46100	Public School Green Glade Road Mississauga	348	.000	.000	.002	.007	.017	.053	.009	.31	.05	1	NIL	NIL
	46110	Queensway West/ Hurontario St. Mississauga	338	.000	.000	.000	.003	.010	.039	.006	.52	.06	8	NIL	NIL
	47041	Fed. Manpower Bldg. 48 Owen St., Barrie	336	.000	.000	.000	.002	.009	.028	.005	.10	.05	NIL	NIL	NIL
	48002	MTC Yard Stouffville	296	.000	.000	.000	.000	.008	.029	.004	.08	.04	NIL	NIL	NIL
	59006	City Hall 500 George St. Peterborough	308	.000	.000	.000	.000	.007	.025	.003	.08	.05	NIL	NIL	NIL
SOUTH EAST	51001	McDonald Gdns. Ottawa	332	.000	.000	.000	.001	.013	.046	.006	.11	.07	NIL	NIL	NIL
	52020	Churchill Park Napier St. Kingston	345	.000	.000	.000	.000	.003	.015	.002	.03	.02	NIL	NIL	NIL
	56051	Memorial Park Cornwall	342	.000	.000	.000	.010	.034	.085	.013	.26	.07	1	NIL	NIL
NORTH WEST	61010	Lassie/Dickenson Rds. Balmertown	296	.000	.000	.000	.000	.012	.380	.016	.70	.25	153	8	NIL

Table 3/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
NORTH WEST	63022	Hospital 35 Algoma St. N. Thunder Bay	357	.000	.000	.000	.000	.000	.014	.001	.10	.01	NIL	NIL	NIL
	63040	435 James St. Thunder Bay	347	.000	.000	.000	.000	.000	.025	.001	.24	.02	NIL	NIL	NIL
NORTH EAST	71001	29 Hillcrest Ave. Wawa	348	.000	.000	.000	.000	.003	.129	.006	1.31	.11	35	1	NIL
	71002	Goudreau Algoma	65	.000	.000	.000	.000	.009	.169	.008	.46	.06	9	NIL	INS
	71022	Sault College Queens Street Sault Ste. Marie	357	.000	.000	.000	.003	.015	.080	.007	.22	.08	NIL	NIL	NIL
	71057	Michipicoten Ave. Lot 38 Town of Mission	339	.000	.000	.000	.000	.003	.214	.008	.86	.19	60	2	NIL
	75010	OPP Station North Bay	185	.000	.000	.000	.000	.007	.027	.003	.15	.02	NIL	NIL	INS
	75016	Dept of Transport. Verner	327	.000	.000	.000	.000	.003	.038	.002	.32	.06	1	NIL	NIL
	75020	Teacher's College North Bay	148	.000	.000	.000	.004	.016	.044	.007	.09	.04	NIL	NIL	INS
	77001.	Penage Sudbury District	357	.000	.000	.000	.000	.000	.026	.001	.25	.07	NIL	NIL	NIL
	77009	Burwash Sudbury District	358	.000	.000	.000	.000	.008	.056	.004	.29	.05	2	NIL	NIL
	77010	Callum Sudbury District	350	.000	.000	.000	.000	.005	.054	.003	.32	.06	2	NIL	NIL
	77012	Skead Sudbury District	362	.000	.000	.000	.000	.019	.216	.012	.83	.16	64	3	NIL
	77013	Hanmer Sudbury District	323	.000	.000	.000	.000	.008	.091	.005	.49	.07	7	NIL	NIL
	77014	Rayside Sudbury District	358	.000	.000	.000	.000	.005	.049	.003	.81	.09	8	NIL	NIL
	77016	Ash Street Sudbury	352	.000	.000	.003	.009	.020	.099	.012	.43	.09	7	NIL	NIL
	77017	Morgan Sudbury District	362	.000	.000	.000	.000	.005	.036	.003	.39	.05	1	NIL	NIL
	77018	St. Charles Sudbury District	352	.000	.000	.000	.000	.002	.033	.002	.15	.03	NIL	NIL	NIL
	77019	Grassy Lake Sudbury District	110	.000	.000	.000	.000	.003	.033	.002	.16	.02	NIL	NIL	INS
	77023	Happy Valley Falconbridge	358	.000	.000	.000	.000	.027	.489	.022	1.86	.49	212	22	1
	77028	Government/Edward Coniston	364	.000	.000	.000	.005	.020	.127	.010	.52	.11	12	2	NIL
	77052	Lockerby Sudbury Airshed	330	.000	.000	.000	.000	.010	.077	.006	.71	.06	7	NIL	NIL
	77065	Falconbridge Rd. Sudbury	363	.000	.000	.000	.000	.010	.145	.007	.61	.09	35	NIL	NIL
	77066	Temagami Sudbury Airshed	132	.000	.000	.000	.000	.002	.038	.002	.22	.03	NIL	NIL	INS
	77067	Chiniguchi Sudbury Airshed	131	.000	.000	.000	.000	.004	.048	.003	.21	.03	NIL	NIL	INS
	77075	Kennedy St. New Sudbury	363	.000	.000	.000	.006	.018	.125	.011	.76	.11	22	1	NIL
NEMP	22901	100 M S. Hwy.59 Long Point Prov. Park	201	.000	.000	.000	.000	.000	.014	.001	.04	.02	NIL	NIL	INS
	22902	Tynesdale/Chippewa Rd. Binbrook West	270	.000	.000	.000	.004	.015	.053	.007	.18	.06	NIL	NIL	INS
ONTARIO HYDRO		4.9 km ENE Keith Generating Station Windsor	348	.000	.003	.008	.014	.029	.062	.012	.21	.05	NIL	NIL	NIL
		5.4 km E Keith G.S.	278	.000	.001	.005	.011	.024	.058	.010	.12	.05	NIL	NIL	NIL
		5.7 km ESE Keith G.S.	293	.000	.001	.004	.010	.024	.061	.009	.19	.05	NIL	NIL	NIL
		5.6 km SE Keith G.S.	277	.000	.003	.006	.012	.026	.064	.011	.12	.06	NIL	NIL	NIL

Table 3/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
ONTARIO HYDRO		7 km NE Lambton G.S.													
		Courtright	271	.000	.000	.002	.006	.020	.086	.008	.47	.07	8	NIL	INS
		8 km ENE Lambton G.S.	293	.000	.001	.004	.008	.021	.079	.008	.35	.07	1	NIL	NIL
		5 km E Lambton G.S.	277	.000	.000	.000	.004	.016	.062	.006	.28	.05	1	NIL	NIL
		7 km ESE Lambton G.S.	302	.000	.000	.002	.006	.018	.078	.007	.29	.06	2	NIL	NIL
		6 km SE Lambton G.S.	298	.000	.000	.002	.004	.014	.058	.006	.22	.05	NIL	NIL	NIL
		7 km N Nanticoke G.S.													
		Nanticoke	274	.000	.000	.002	.006	.015	.058	.006	.36	.06	2	NIL	NIL
		15 km N Nanticoke G.S.	308	.000	.000	.001	.004	.012	.040	.005	.21	.04	NIL	NIL	NIL
		5 km NNE Nanticoke G.S.	342	.000	.000	.001	.005	.016	.057	.006	.21	.08	NIL	NIL	NIL
		9 km NNE Nanticoke G.S.	336	.000	.000	.002	.008	.018	.058	.007	.40	.06	1	NIL	NIL
		16 km NNE Nanticoke G.S.	333	.000	.001	.004	.008	.020	.062	.008	.25	.06	NIL	NIL	NIL
		20 km NNE Nanticoke G.S.	280	.000	.000	.001	.004	.012	.046	.005	.15	.03	NIL	NIL	NIL
		19 km NE Nanticoke G.S.	288	.000	.000	.002	.006	.017	.060	.006	.18	.06	NIL	NIL	NIL
		11 km ENE Nanticoke G.S.	330	.000	.000	.001	.005	.013	.041	.005	.25	.05	NIL	NIL	NIL
		18 km ENE Nanticoke G.S.	341	.000	.000	.003	.006	.015	.040	.006	.21	.03	NIL	NIL	NIL
		5 km E Nanticoke G.S.	360	.000	.000	.003	.006	.017	.065	.007	.25	.06	NIL	NIL	NIL
		13 km W Nanticoke G.S.	333	.000	.001	.003	.007	.018	.050	.007	.17	.07	NIL	NIL	NIL
		3 km WNW Nanticoke G.S.	332	.000	.000	.002	.005	.012	.040	.005	.56	.06	1	NIL	NIL
		20 km WNW Nanticoke G.S.	253	.000	.000	.002	.006	.015	.045	.006	.18	.06	NIL	NIL	INS
		8 km NNW Nanticoke G.S.	262	.000	.000	.001	.004	.012	.042	.005	.30	.06	1	NIL	INS
		11 km NNW Nanticoke G.S.	326	.000	.000	.001	.003	.012	.039	.004	.30	.06	1	NIL	NIL
		15 km NNW Nanticoke G.S.	351	.000	.000	.002	.005	.013	.039	.005	.23	.04	NIL	NIL	NIL
		7 km NNE Lakeview G.S.													
		Etobicoke	297	.000	.000	.005	.010	.020	.060	.009	.30	.05	1	NIL	NIL
		5 km ENE Lakeview G.S.	219	.000	.001	.004	.008	.021	.087	.009	.37	.08	2	NIL	INS
		7 km W Lakeview G.S.	318	.000	.000	.003	.010	.020	.082	.009	.78	.18	18	1	NIL
		6 km NW Lakeview G.S.	309	.000	.000	.002	.008	.020	.060	.007	.45	.06	7	NIL	NIL
		19 km NW Lakeview G.S.	196	.000	.001	.003	.006	.014	.043	.006	.21	.04	NIL	NIL	INS
		6 km NNW Lakeview G.S.	284	.000	.000	.003	.007	.017	.048	.007	.37	.03	2	NIL	NIL
		8 km NE Hearn G.S.													
		Toronto	346	.000	.001	.004	.008	.018	.052	.008	.18	.11	NIL	1	NIL
		7 km NNW Hearn G.S.	325	.001	.004	.007	.012	.025	.061	.011	.21	.08	NIL	NIL	NIL
		10 km N Lennox G.S.													
		Bath	312	.000	.000	.000	.000	.005	.015	.002	.04	.02	NIL	NIL	INS
		15 km NNE Lennox G.S.	302	.000	.000	.000	.000	.010	.020	.002	.06	.04	NIL	NIL	NIL
		7 km NE Lennox G.S.	311	.000	.000	.001	.003	.005	.019	.003	.04	.02	NIL	NIL	NIL
		10 km SW Lennox G.S.	343	.000	.000	.001	.003	.008	.025	.003	.06	.04	NIL	NIL	NIL

Table 3/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1 HR.	24-HR.	1 HR.	24-HR.	1 YEAR
ONTARIO HYDRO		10 km W Lennox G.S.	273	.000	.000	.000	.002	.010	.030	.003	.06	.04	NIL	NIL	NIL
		10 km NW Lennox G.S.	263	.000	.000	.000	.000	.004	.014	.001	.07	.02	NIL	NIL	INS
		4 km N Thunder Bay G.S.	342	.000	.000	.000	.001	.010	.050	.003	.14	.03	NIL	NIL	NIL
		4 km SSE Thunder Bay G.S.	332	.000	.000	.000	.001	.005	.044	.003	.16	.07	NIL	NIL	NIL
		5 km W Thunder Bay G.S.	362	.000	.000	.000	.002	.008	.025	.003	.15	.02	NIL	NIL	NIL
		5 km WSW Thunder Bay G.S.	323	.000	.000	.001	.002	.008	.053	.004	.32	.05	2	NIL	NIL
		5 km NW Thunder Bay G.S.	355	.000	.000	.000	.002	.005	.024	.002	.31	.03	1	NIL	NIL

Table 4/1979 Summary of Data: Soiling Index — 1 Hour (all values are in COH's/1,000 ft.)

Ontario Criteria — 24-Hour Average — 1.0 COH's/1,000 ft. 1 Year Average — 0.5 COH's/1,000 ft.
INS — Indicates insufficient sample size to apply 1 year average criterion

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA		
				10	30	50	70	90	99		1 HR.	24-HR.	24-HR.	1 YEAR	
SOUTH- WEST	12008	467 University Ave. Windsor	363	.07	.22	.34	.51	.84	1.60	.47	3.3	1.2	7	NIL	
	12016	College—South St. Windsor	364	.02	.19	.29	.45	.76	1.42	.41	3.8	1.1	1	NIL	
	14064	Centennial Park Front St./CN Tracks Sarnia	357	.00	.08	.21	.35	.59	1.10	.30	2.3	1.4	2	NIL	
	15001	King—Rectory London	352	.00	.11	.23	.36	.62	1.26	.32	3.0	1.0	NIL	NIL	
WEST CENTRAL	22071	Experimental Farm Simcoe	360	.00	.00	.13	.21	.37	.77	.19	1.6	0.8	NIL	NIL	
	27013	PS Victoria/Leader Niagara Falls	197	.00	.15	.25	.37	.61	1.26	.34	2.8	1.0	NIL	INS	
	27037	North/Geneva St. St. Catharines	139	.00	.16	.26	.39	.67	1.62	.37	3.8	1.4	2	INS	
	27049	Murray/Buchanan Ave. Niagara Falls	161	.00	.11	.19	.28	.45	.85	.25	1.5	0.7	NIL	INS	
	29008	North Park Hamilton	347	.07	.29	.56	.92	1.49	2.27	.73	5.9	2.0	73	1	
	29025	Barton-Wentworth Hamilton	365	.11	.25	.41	.68	1.29	2.46	.63	4.3	3.1	55	1	
CENTRAL	31001	67 College St. 5th Floor Toronto	363	.00	.17	.27	.42	.73	1.43	.39	2.6	1.5	3	NIL	
	31105	Sherbourne/Wilton Toronto	333	.14	.28	.45	.66	1.12	2.31	.61	4.5	1.9	34	1	
	33003	Lawrence—Kennedy Scarborough	349	.00	.15	.26	.40	.71	1.43	.37	2.6	1.3	1	NIL	
	34002	Science Centre Don Mills	364	.00	.13	.24	.38	.64	1.36	.34	2.5	1.4	3	NIL	
	34007	North York Bathurst—Wilson	356	.00	.18	.38	.68	1.16	2.05	.55	4.4	1.9	30	1	
	35003	Elmcrest Rd. Etobicoke	346	.00	.05	.18	.31	.64	1.36	.30	3.1	1.4	3	NIL	
	35033	Evans—Arnold Etobicoke	355	.02	.24	.40	.64	1.15	2.40	.58	4.3	3.1	31	1	
	45025	Ritson Rd./Olive Ave. Oshawa	205	.00	.11	.23	.38	.66	1.48	.33	3.8	1.1	2	INS	
	SOUTH- EAST	51001	McDonald Gdns. Ottawa	347	.00	.03	.16	.26	.46	.85	.23	2.0	0.7	NIL	NIL
		56051	Memorial Gdns. Cornwall	343	.00	.00	.11	.20	.42	1.31	.20	4.4	1.0	NIL	NIL

Table 4/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1 HR.	24-HR.	24-HR.	1 YEAR
NORTH- EAST	77016	Ash Street Sudbury	361	.00	.00	.00	.14	.29	.75	.12	4.1	0.7	NIL	NIL
	77028	Government/Edward Coniston	364	.00	.00	.03	.16	.33	.92	.15	1.7	0.7	NIL	NIL
	77075	Kennedy St. New Sudbury	358	.00	.00	.00	.16	.32	.85	.14	2.7	0.8	NIL	NIL

Table 5/1979 Summary of Data: Soiling Index — 2 Hour (all values are in COH's/1,000 ft.)

Ontario Criteria — 24 Hour Average — 1.0 COH's/1,000 ft. 1 Year Average — 0.5 COH's/1,000 ft.
 INS — Indicates insufficient sample size to apply 1 year average criterion

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		2 HR.	24-HR.	24-HR.	1 YEAR
SOUTH- WEST	15003	362 Dundas St. London	325	.00	.00	.13	.20	.40	.86	.20	2.3	0.9	NIL	NIL
WEST CENTRAL	21006	Post Office Brantford	318	.00	.00	.11	.17	.30	.65	.16	1.2	0.6	NIL	NIL
	22086	Cheapside Rd. 3 Km S of Hwy 3 Nanticoke	326	.00	.00	.07	.16	.29	.63	.14	1.3	0.4	NIL	NIL
	26001	Public Utilities Substation Waterloo	283	.00	.00	.02	.14	.23	.54	.12	1.9	0.6	NIL	NIL
	26029	Edna/Frederick St. Kitchener	291	.00	.10	.17	.28	.58	1.31	.29	2.3	1.3	1	NIL
	29001	Hughson—Main Hamilton	263	.00	.11	.19	.32	.67	1.40	.32	3.7	2.3	4	INS
	29009	Kenilworth Hamilton	330	.00	.00	.11	.18	.35	.86	.18	2.6	1.3	1	NIL
	29011	Burlington/Leeds Hamilton	200	.00	.11	.19	.34	.68	1.25	.32	2.3	1.0	NIL	INS
	29012	Burlington—Wellington Hamilton	311	.00	.00	.12	.19	.39	.84	.18	1.5	0.6	NIL	NIL
	29015	Merrick St. Hamilton	342	.00	.05	.16	.27	.60	1.38	.28	3.3	2.0	2	NIL
	29017	Chatham—Frid Hamilton	231	.00	.09	.17	.28	.62	1.44	.29	2.2	1.6	1	INS
	29067	450 Hughson St. Hamilton	361	.00	.04	.16	.25	.49	1.01	.24	2.0	1.5	1	NIL
CENTRAL	33019	Met. Branch, Scar. Bluffs Scarborough	355	.00	.00	.11	.17	.29	.66	.16	2.2	0.5	NIL	NIL
	35005	Queensway Hospital Etobicoke	365	.00	.01	.14	.22	.44	1.09	.22	4.1	1.0	NIL	NIL
	35008	22—36th St. Etobicoke	362	.00	.04	.16	.26	.53	1.23	.26	3.2	1.4	1	NIL
	35050	MOE Lab Resources Rd. Etobicoke	347	.00	.12	.19	.31	.60	1.28	.31	2.8	1.5	2	NIL
	44007	2037 Pine Burlington	112	.00	.00	.11	.18	.30	.71	.16	1.3	0.4	NIL	INS
	44008	Hwy 2/North Shore Blvd. E. Burlington	244	.00	.06	.16	.25	.49	1.11	.25	2.3	1.3	1	INS
	44010	1298 Rebecca St. Oakville	365	.00	.10	.17	.26	.54	1.16	.27	2.0	1.0	NIL	NIL
	45024	206 Eulalie St. Oshawa	319	.00	.00	.13	.20	.43	.87	.20	1.5	0.7	NIL	NIL
	46025	Public Library Mississauga	330	.00	.01	.13	.19	.40	.86	.20	2.0	0.7	NIL	NIL
	46033	Fire Hall Bramalea	284	.00	.00	.06	.16	.36	.84	.16	1.5	0.9	NIL	NIL
	46100	Public School, Green Glade Rd. Mississauga	364	.00	.00	.12	.18	.34	.77	.17	1.5	0.7	NIL	NIL
	46110	Queensway West/ Huronario St. Mississauga	365	.00	.11	.19	.34	.66	1.36	.32	2.9	1.5	3	NIL

Table 5/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		2 HR.	24-HR.	24-HR.	1 YEAR
CENTRAL	47041	Fed. Manpower Bldg. 48 Owen St. Barrie	326	.00	.00	.11	.17	.31	.67	.16	1.3	0.6	NIL	NIL
	48002	MTC Yard Stouffville	311	.00	.00	.00	.07	.19	.38	.07	0.7	0.2	NIL	NIL
	59006	City Hall 500 George St. Peterborough	295	.00	.00	.10	.17	.33	.71	.16	1.5	0.6	NIL	NIL
SOUTH-EAST	52018	1055 Princess St. Kingston	353	.00	.00	.11	.18	.33	.63	.16	1.6	0.5	NIL	NIL
	52020	Churchill Park Napier St. Kingston	361	.00	.00	.10	.17	.29	.65	.15	3.3	0.7	NIL	NIL
NORTH-WEST	63022	Hospital 35 Algoma St. N. Thunder Bay	332	.00	.00	.06	.16	.28	.62	.14	1.3	0.5	NIL	NIL
	63040	435 James St. Thunder Bay	315	.00	.00	.10	.17	.29	.66	.15	1.3	0.5	NIL	NIL
NORTH-EAST	71022	Sault College Queens St. Sault Ste. Marie	275	.00	.00	.13	.22	.47	1.12	.22	2.3	0.8	NIL	NIL
	75010	OPP Station North Bay	160	.00	.00	.01	.14	.25	.61	.12	1.3	0.4	NIL	INS
	75020	Teacher's College North Bay	144	.00	.00	.05	.17	.33	1.03	.16	1.9	0.6	NIL	INS
	77023	Happy Valley Falconbridge	316	.00	.00	.00	.13	.24	.47	.11	0.9	0.3	NIL	NIL
	77026	19 Lisgar St. Sudbury	320	.00	.00	.11	.18	.35	.75	.17	2.7	0.6	NIL	NIL
NEMP	22902	Tynesdale/Chippewa Rd. Binbrook West	203	.00	.02	.12	.18	.30	.67	.18	1.6	0.7	NIL	INS

Table 6/1979 Summary of Data: Carbon Monoxide (all values in p.p.m.)

Ontario Criteria — O. Reg. 872/74 — 1 Hour Average : 30 p.p.m. 8 Hour Average: 13 p.p.m.

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1 HR.	8 HR.	1 HR.	8 HR.
SOUTH-WEST	12008	467 University Ave. Windsor	365	0.2	0.9	1.4	1.8	2.8	5.7	2.0	13	7	NIL	NIL
	14064	Centennial Park Front St./CN Tracks Sarnia	349	0.0	0.0	0.0	0.0	0.7	1.9	0.3	11	5	NIL	NIL
	15001	King—Rectory London	364	0.0	0.0	0.0	0.0	0.9	3.5	0.4	16	10	NIL	NIL
WEST CENTRAL	26029	Edna/Frederick St. Kitchener	344	0.0	0.0	0.4	0.8	1.8	4.6	1.0	20	14	NIL	1
	27037	North/Geneva St. St. Catharines	359	0.0	0.1	0.4	0.7	1.3	3.7	0.9	10	7	NIL	NIL
	29025	Barton—Wentworth Hamilton	317	0.0	0.3	0.8	1.4	2.5	4.8	1.5	14	10	NIL	NIL
CENTRAL	31001	67 College St. 5th Floor Toronto	359	0.0	0.4	0.8	1.3	2.0	4.3	1.5	14	8	NIL	NIL
	31049	Mission, 381 Yonge St. Toronto	326	0.6	1.9	3.1	5.1	9.4	23.5	5.0	42	31	28	55
	31090	67 College St. 2nd Floor Toronto	340	1.3	2.3	3.1	4.0	5.9	9.8	3.9	19	14	NIL	1
	31105	Sherbourne/Wilton Toronto	338	0.0	0.3	0.7	1.3	2.1	4.9	1.4	14	9	NIL	NIL
	33003	Lawrence—Kennedy Scarborough	361	0.1	0.4	0.8	1.3	2.3	4.9	1.5	11	7	NIL	NIL
	34002	Science Centre Don Mills North York	365	0.0	0.5	1.0	1.6	2.6	4.9	1.6	9	8	NIL	NIL

Table 6/1979 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERIA	
				10	30	50	70	90	99		1 HR.	8 HR.	1 HR.	8 HR.
CENTRAL	34007	Bathurst—Wilson North York	354	1.0	1.6	2.2	2.9	4.3	7.0	2.9	18	9	NIL	NIL
	35003	Elmcrest Rd. Etobicoke	358	0.0	0.3	0.7	1.0	2.0	4.6	1.3	11	7	NIL	NIL
	35033	Evans—Arnold Etobicoke	364	0.1	0.7	1.2	1.8	2.8	5.7	1.9	17	9	NIL	NIL
	44010	1298 Rebecca St. Oakville	341	0.1	0.4	0.7	1.0	1.7	3.0	1.3	8	5	NIL	NIL
	45025	Ritson Rd./Olive Ave. Oshawa	301	0.0	0.1	0.5	0.9	1.9	4.5	1.2	14	6	NIL	NIL
	46110	Queensway West/ Hurontario St. Mississauga	354	0.2	0.7	1.2	1.6	2.2	4.8	1.8	14	9	NIL	NIL
SOUTH-EAST	51001	McDonald Gdns. Ottawa	350	0.0	0.1	0.4	0.8	1.6	2.9	1.0	9	4	NIL	NIL
	56051	Memorial Park Cornwall	361	0.0	0.0	0.4	0.7	1.4	3.5	0.9	13	8	NIL	NIL
NORTH-EAST	77016	Ash Street Sudbury	363	0.0	0.0	0.0	0.0	0.3	2.0	0.2	11	5	NIL	NIL
NEMP	22901	100 M S. Hwy 59 Long Point Prov. Park	277	0.0	0.0	0.0	0.0	0.0	0.8	0.1	6	3	NIL	NIL
	22902	Tynesdale/Chippewa Rd. Binbrook West	297	0.0	0.0	0.0	0.0	0.2	1.0	0.1	4	3	NIL	NIL

**Table 7/1979 Summary of Data: Total Hydrocarbons (all values are in p.p.m.)
No Existing Criteria**

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
SOUTH- WEST	12008	467 University Ave. Windsor	157	1.20	1.56	1.82	2.01	2.32	3.64	1.86	8.4	2.9
	14064	Centennial Park Front St./CN Tracks Sarnia	344	1.29	1.59	1.79	2.03	2.72	4.71	1.99	7.9	4.8
	14901	Riverside Blvd. Mobile Stn. Corunna	200	1.71	1.80	1.89	2.05	2.38	3.31	2.04	7.2	3.3
	15001	King—Rectory London	344	1.63	1.90	2.13	2.39	2.93	4.89	2.30	10.1	4.2
	CENTRAL	31001	67 College St. 5th Floor Toronto	349	0.74	1.01	1.20	1.39	1.86	3.31	1.32	6.7
	33003	Lawrence—Kennedy Scarborough	350	1.14	1.36	1.51	1.69	2.07	3.30	1.64	6.2	2.9
	34002	Science Centre Don Mills										
	34007	North York Bathurst—Wilson	358	1.09	1.26	1.43	1.68	2.43	3.96	1.67	6.6	3.7
	35003	North York Elmcrest Rd.	340	1.18	1.63	1.88	2.16	2.66	4.06	1.97	6.7	4.0
	35033	Etobicoke Evans—Arnold	346	1.75	1.93	2.08	2.28	2.88	4.89	2.29	18.0	4.8
	44010	Etobicoke 1298 Rebecca St. Oakville	335	1.31	1.54	1.74	2.01	2.78	5.65	2.01	13.5	8.3
			339	1.66	1.85	2.01	2.17	2.56	3.47	2.12	7.6	3.0
NEMP	22903	Cheapside Rd./Walpole Conc. 5										
		Nanticoke	159	1.32	1.46	1.55	1.67	2.73	4.05	1.81	4.6	4.1
	22904	Walpole South PS Sandusk Rd.										
		Nanticoke	245	1.08	1.25	1.34	1.43	1.77	3.83	1.49	8.8	3.1
	22905	Nanticoke Rd./ Walpole Conc. 5 Nanticoke	113	1.60	1.75	1.86	1.96	2.14	2.59	1.92	3.4	2.5

Table 8/1979 Summary of Data: Reactive Hydrocarbons (all values are in p.p.m.)
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
SOUTH- WEST	14901	Riverside Blvd. Mobile Station Corunna	196	.12	.22	.32	.43	.76	1.61	.44	.47	.17
WEST CENTRAL	27037	North/Geneva St. St. Catharines	136	.02	.12	.18	.27	.52	1.28	.29	.39	.13
	29008	North Park Hamilton	84	.00	.02	.08	.16	.28	.72	.16	.12	.05
	29025	Barton/Wentworth Hamilton	137	1.27	1.60	1.74	2.35	3.23	3.99	2.11	.54	.42
CENTRAL	31001	67 College St. 5th Floor Toronto	224	.00	.05	.11	.18	.39	1.35	.23	.73	.19
NEMP	22903	Cheapside Rd./Walpole Conc. 5										
		Nanticoke	148	.00	.07	.14	.23	3.68	13.92	1.20	1.80	1.35
	22904	Walpole South PS Sandusk Rd.										
		Nanticoke	242	.32	.47	.58	.74	1.03	1.58	.69	.38	.15
	22905	Nanticoke Rd./Walpole Conc. 5										
		Nanticoke	113	.31	.50	.56	.66	.79	1.39	.63	.51	.16

Table 9/1979 Summary of Data: Ozone (all values in p.p.m.)
Ontario Criteria — 1 Hour Average: 0.08 p.p.m.

Region	Station Number	Location	No. of Days	Percentiles						Arith- metic Mean	Maximum		Number of Times Above Criterion 1 Hr.
				10	30	50	70	90	99		1 Hr.	24 Hr.	
SOUTH- WEST	10001	College of Agric. Tech. Huron Park	283	.009	.017	.023	.030	.044	.080	.026	.123	.086	66
	12008	467 University Ave. Windsor	339	.000	.004	.010	.019	.037	.077	.016	.120	.062	62
	13021	MOE Pump Stn. Middle Rd.											
	14064	Merlin Centennial Park	257	.005	.013	.022	.033	.045	.073	.025	.158	.072	38
		Front St./CN Tracks Sarnia	360	.001	.011	.021	.030	.043	.088	.023	.159	.074	130
	14118	PUC Water Pump Stn. Hwy 21											
	14901	Petrolia Riverside Blvd.	307	.005	.016	.026	.033	.048	.088	.027	.148	.074	137
		Mobile Stn. Corunna	119	.010	.021	.027	.034	.048	.085	.029	.118	.057	37
	15001	King—Rectory London	350	.000	.006	.014	.020	.034	.071	.017	.101	.060	41
	18001	MacKenzie RR2 Tiverton	183	.018	.026	.031	.036	.047	.080	.033	.129	.070	43
	18007	Concession Rd. 2 Lot A Tiverton	146	.009	.016	.021	.025	.041	.090	.024	.142	.082	59
WEST CENTRAL	22071	Experimental Farm Simcoe	357	.009	.018	.025	.033	.049	.081	.028	.148	.080	96
	26029	Edna/Frederick St. Kitchener	315	.000	.008	.018	.027	.042	.074	.020	.115	.077	50
	27037	North/Geneva St. St. Catharines	270	.000	.008	.016	.023	.039	.068	.019	.124	.059	11
	29025	Barton—Wentworth Hamilton	358	.000	.005	.012	.019	.033	.067	.015	.112	.072	32
CENTRAL	31001	67 College St. 5th Floor Toronto	344	.000	.005	.011	.020	.036	.081	.016	.155	.067	92
	31105	Sherbourne/Wilton Toronto	331	.000	.003	.007	.013	.025	.060	.011	.106	.053	14
	33003	Lawrence—Kennedy Scarborough	350	.000	.004	.010	.018	.032	.072	.014	.165	.060	44

Table 9/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM		NUMBER OF TIMES ABOVE CRITERION 1 HR.
				10	30	50	70	90	99		1 HR.	24 HR.	
CENTRAL	34002	Science Centre Don Mills											
		North York	362	.000	.003	.010	.018	.028	.055	.013	.099	.043	7
	35003	Elmcrest Rd.											
		Etobicoke	318	.000	.000	.007	.014	.028	.057	.011	.092	.048	2
	35033	Evans—Arnold											
		Etobicoke	334	.000	.002	.006	.012	.028	.071	.011	.126	.067	46
	44008	Hwy 2/North Shore Blvd. E.											
		Burlington	180	.000	.004	.010	.018	.039	.083	.016	.144	.063	50
	44010	1298 Rebecca St.											
		Oakville	313	.000	.008	.016	.025	.042	.076	.020	.129	.054	49
SOUTH- EAST	45025	Ritson Rd./Olive Ave.											
		Oshawa	330	.002	.009	.015	.021	.034	.071	.018	.149	.061	41
	45125	Natural Res. Bldg.											
		Orono	362	.006	.016	.024	.031	.047	.098	.027	.171	.080	187
	46110	Queensway W./ Hurontario St.											
		Mississauga	357	.000	.005	.012	.019	.032	.072	.015	.134	.059	43
	48002	MTC Yard											
		Stouffville	337	.006	.015	.021	.028	.043	.081	.024	.172	.076	90
	51001	McDonald Gdns.											
		Ottawa	360	.001	.008	.014	.022	.035	.062	.017	.096	.063	8
NORTH- EAST	56051	Memorial Park											
		Cornwall	319	.004	.013	.020	.028	.044	.078	.023	.114	.084	63
	71057	Michipicoten Ave. Lot 38											
		Town of Mission	141	.002	.012	.022	.032	.046	.073	.024	.100	.065	9
NEMP	77016	Ash Street											
		Sudbury	361	.005	.010	.015	.020	.034	.068	.018	.096	.063	23
	22901	100 M. S. Hwy 59											
		Long Point Prov. Park	250	.012	.020	.027	.035	.055	.124	.032	.297	.198	174
	22902	Tynesdale/Chippewa Rd.											
		Binbrook West	244	.009	.018	.025	.032	.045	.075	.027	.118	.070	34

Table 10/1979 Summary of Data: Total Reduced Sulphur (all values in p.p.b.)
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
SOUTH- WEST	14062	242 Indian Rd. S.										
		Sarnia	327	0.0	0.0	0.0	0.0	1.5	5.1	0.5	29	5
	18001	MacKenzie RR 2										
		Tiverton	147	0.0	0.0	0.0	0.0	0.0	4.5	0.2	11	5
WEST CENTRAL	18007	Concession Rd. 2 Lot A										
		Tiverton	150	0.0	0.0	0.0	0.0	0.0	3.8	0.1	12	6
	29008	North Park										
		Hamilton	300	0.0	0.0	0.2	1.6	4.2	9.4	1.6	32	9
SOUTH- EAST	29025	Barton—Wentworth										
		Hamilton	215	0.0	0.0	0.0	1.5	6.6	22.7	2.4	144	27
	56051	Memorial Park										
		Cornwall	329	0.0	0.0	1.3	3.2	7.0	21.0	3.1	70	15
NORTH- WEST	56068	435 Second St. W.										
		Cornwall	296	0.0	0.0	0.8	2.4	7.6	29.4	3.2	83	15
	61026	56 King St.										
		Dryden	200	0.0	0.0	0.1	3.2	20.1	123.4	8.7	236	109
	62030	Portage/Church										
		Fort Frances	344	0.0	0.0	0.0	3.5	29.6	139.5	10.2	353	98

Table 10/1979 – Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
NORTH WEST	62032	Cemetery Colonization Rd. Fort Frances	306	0.0	0.0	0.0	0.6	8.1	38.2	2.9	140	21
	63046	Montreal St. Thunder Bay	218	0.0	0.0	0.0	1.4	8.2	23.2	2.6	58	17
NEMP	22903	Cheapside Rd./Walpole Conc. 5										
		Nanticoke	232	0.0	0.0	0.0	0.0	0.9	2.6	0.4	25	3
	22904	Walpole South PS Sandusk Rd.										
		Nanticoke	280	0.0	0.0	0.0	0.0	0.8	2.5	0.4	60	6
	22905	Nanticoke Rd./Walpole Conc. 5										
		Nanticoke	174	0.0	0.0	0.0	0.0	0.7	2.1	0.3	8	2

Table 11/1979 Summary of Data: Nitrogen Dioxide (all values in p.p.m.)
Ontario Criteria — 1 Hour Average: 0.20 p.p.m. 24 Hour Average: 0.10 p.p.m.

[illegible]

Table 11/1979 – Continued . . .

Region	Station Number	Location	No. of Days	Percentiles						Arith- metic Mean	Maximum		Number of Times Above Criteria	
				10	30	50	70	90	99		1 Hr.	24 Hr.	1 Hr.	24 Hr.
SOUTH- EAST	51001	McDonald Gdns. Ottawa	308	.000	.000	.003	.010	.027	.064	.012	.16	.05	NIL	NIL
	56051	Memorial Park Cornwall	362	.000	.000	.004	.009	.021	.046	.011	.09	.05	NIL	NIL
NORTH- EAST	77016	Ash Street Sudbury	347	.000	.000	.000	.003	.012	.032	.006	.07	.04	NIL	NIL

Table 12/1979 Summary of Data: Nitric Oxide (all values in p.p.m.)
No Existing Criteria

Region	Station Number	Location	No. of Days	Percentiles						Arith- metic Mean	Maximum		
				10	30	50	70	90	99		1 Hr.	24 Hr.	
SOUTH- WEST	12008	467 University Ave. Windsor	352	.000	.000	.006	.017	.049	.138	.021	0.65	0.13	
	14064	Centennial Park Front St./CN Tracks Sarnia	346	.000	.001	.007	.015	.033	.096	.017	0.53	0.08	
	14901	Riverside Blvd. Mobile Stn. Corunna	84	.000	.000	.000	.000	.008	.035	.003	0.08	0.02	
	15001	King—Rectory London	318	.000	.000	.005	.014	.038	.148	.018	0.71	0.14	
WEST CENTRAL	22071	Experimental Farm Simcoe	363	.000	.000	.000	.000	.006	.018	.003	0.07	0.02	
	22086	Cheapside Rd. 3 Km S. of Hwy 3 Nanticoke	330	.000	.000	.000	.000	.003	.018	.002	0.08	0.01	
	26029	Edna/Frederick St. Kitchener	199	.000	.004	.011	.029	.112	.389	.044	0.86	0.36	
	27037	North/Geneva St. St. Catharines	168	.000	.001	.007	.015	.041	.212	.022	0.86	0.27	
	29008	North Park Hamilton	331	.000	.004	.043	.089	.162	.309	.068	0.59	0.22	
	29025	Barton—Wentworth Hamilton	365	.000	.001	.009	.025	.071	.234	.030	0.78	0.43	
CENTRAL	31001	67 College St. 5th Floor Toronto	358	.000	.000	.005	.014	.039	.151	.019	0.61	0.24	
	31105	Sherbourne/Wilton Toronto	335	.000	.008	.020	.043	.100	.315	.046	0.87	0.30	
	33003	Lawrence—Kennedy Scarborough	317	.000	.003	.013	.032	.088	.291	.037	0.91	0.25	
	34002	Science Centre Don Mills North York	355	.000	.002	.008	.019	.080	.331	.034	0.83	0.43	
	34007	Bathurst—Wilson North York	355	.000	.013	.058	.149	.288	.553	.114	0.92	0.45	
	35003	Elmcrest Rd. Etobicoke	359	.000	.000	.004	.014	.068	.291	.027	0.76	0.25	
	35033	Evans—Arnold Etobicoke	352	.000	.007	.026	.060	.138	.410	.059	0.88	0.38	
	44010	1298 Rebecca St. Oakville	346	.000	.000	.000	.006	.047	.209	.018	0.61	0.21	
	45025	Ritson Rd./Olive Ave. Oshawa	343	.000	.000	.005	.015	.044	.180	.020	0.41	0.14	
	46110	Queensway West/ Huronario St. Mississauga	362	.000	.005	.010	.022	.072	.251	.032	0.79	0.28	
	58030	132 King St. Port Hope	130	.000	.000	.000	.005	.015	.077	.009	0.19	0.06	
	SOUTH- EAST	51001	McDonald Gdns. Ottawa	337	.000	.006	.014	.023	.051	.161	.026	0.45	0.11
		56051	Memorial Park Cornwall	363	.000	.000	.000	.002	.014	.132	.009	0.50	0.16

Table 12/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
NORTH-EAST	77016	Ash Street Sudbury	342	.000	.000	.000	.000	.009	.087	.006	0.26	0.11
NEMP	22901	100 M S. Hwy 59 Long Point Prov. Park	210	.000	.002	.005	.008	.014	.046	.010	0.14	0.05
	22902	Tynesdale/Chippewa Road Binbrook West	345	.000	.000	.002	.006	.013	.039	.008	0.14	0.04
	22906	Sandusk Rd. Btw. Walpole Conc. 4/5 Sandusk	198	.000	.000	.000	.003	.008	.024	.005	0.15	0.03

Table 13/1979 Summary of Data: Nitrogen Oxides (all values in p.p.m.)
No Existing Criteria

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH-METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
SOUTH-WEST	12008	467 University Windsor	352	.014	.027	.039	.056	.094	.190	.054	0.74	0.19
	14064	Centennial Park Front St./CN Tracks Sarnia	336	.000	.012	.023	.039	.070	.144	.036	0.59	0.11
	15001	King—Rectory London	316	.007	.021	.034	.050	.085	.234	.049	0.76	0.19
WEST CENTRAL	22071	Experimental Farm Simcoe	363	.000	.001	.006	.011	.024	.055	.013	0.12	0.06
	22086	Cheapside Rd. 3 Km S of Hwy 3 Nanticoke	317	.000	.003	.007	.013	.025	.056	.015	0.13	0.05
	26029	Edna/Frederick St. Kitchener	190	.011	.024	.037	.065	.152	.432	.071	0.89	0.41
	27037	North/Geneva St. St. Catharines	178	.012	.022	.031	.045	.075	.244	.048	0.87	0.30
	29008	North Park Hamilton	348	.005	.030	.080	.134	.212	.358	.101	0.64	0.30
	29025	Barton—Wentworth Hamilton	362	.007	.024	.040	.062	.112	.280	.059	0.88	0.50
CENTRAL	31001	67 College St. 5th Floor Toronto	354	.007	.021	.032	.048	.085	.214	.048	0.71	0.30
	31105	Sherbourne/Wilton Toronto	336	.017	.037	.057	.083	.145	.374	.079	0.95	0.34
	33003	Lawrence—Kennedy Scarborough	309	.004	.021	.042	.067	.132	.338	.064	1.00	0.29
	34002	Science Centre Don Mills										
		North York	361	.006	.019	.031	.051	.113	.365	.057	0.87	0.47
	34007	Bathurst—Wilson North York	355	.011	.035	.094	.200	.341	.604	.148	0.94	0.50
	35003	Elmcrest Rd. Etobicoke	346	.001	.011	.024	.045	.105	.336	.049	0.81	0.28
	35033	Evans—Arnold Etobicoke	362	.021	.043	.066	.100	.180	.459	.096	1.00	0.44
	44010	1298 Rebecca St. Oakville	334	.001	.009	.018	.031	.084	.249	.039	0.68	0.26
	45025	Ritson Rd./Olive Ave. Oshawa	334	.000	.009	.023	.041	.079	.225	.039	0.47	0.18
	46110	Queensway West/Hurontario St. Mississauga	360	.015	.026	.038	.057	.117	.303	.061	0.86	0.33
	58030	132 King St. Port Hope	127	.003	.011	.018	.028	.046	.113	.028	0.21	0.08
SOUTH-EAST	51001	McDonald Gdns. Ottawa	322	.001	.011	.022	.038	.075	.197	.038	0.68	0.16
	56051	Memorial Park Cornwall	362	.000	.001	.007	.016	.039	.172	.021	0.65	0.21

Table 13/1979 — Continued . . .

REGION	STATION NUMBER	LOCATION	NO. OF DAYS	PERCENTILES						ARITH- METIC MEAN	MAXIMUM	
				10	30	50	70	90	99		1 HR.	24 HR.
NORTH- EAST	77016	Ash Street Sudbury	344	.000	.000	.000	.007	.026	.118	.012	0.51	0.12

Table 14/1979 Ontario's Air Pollution Index

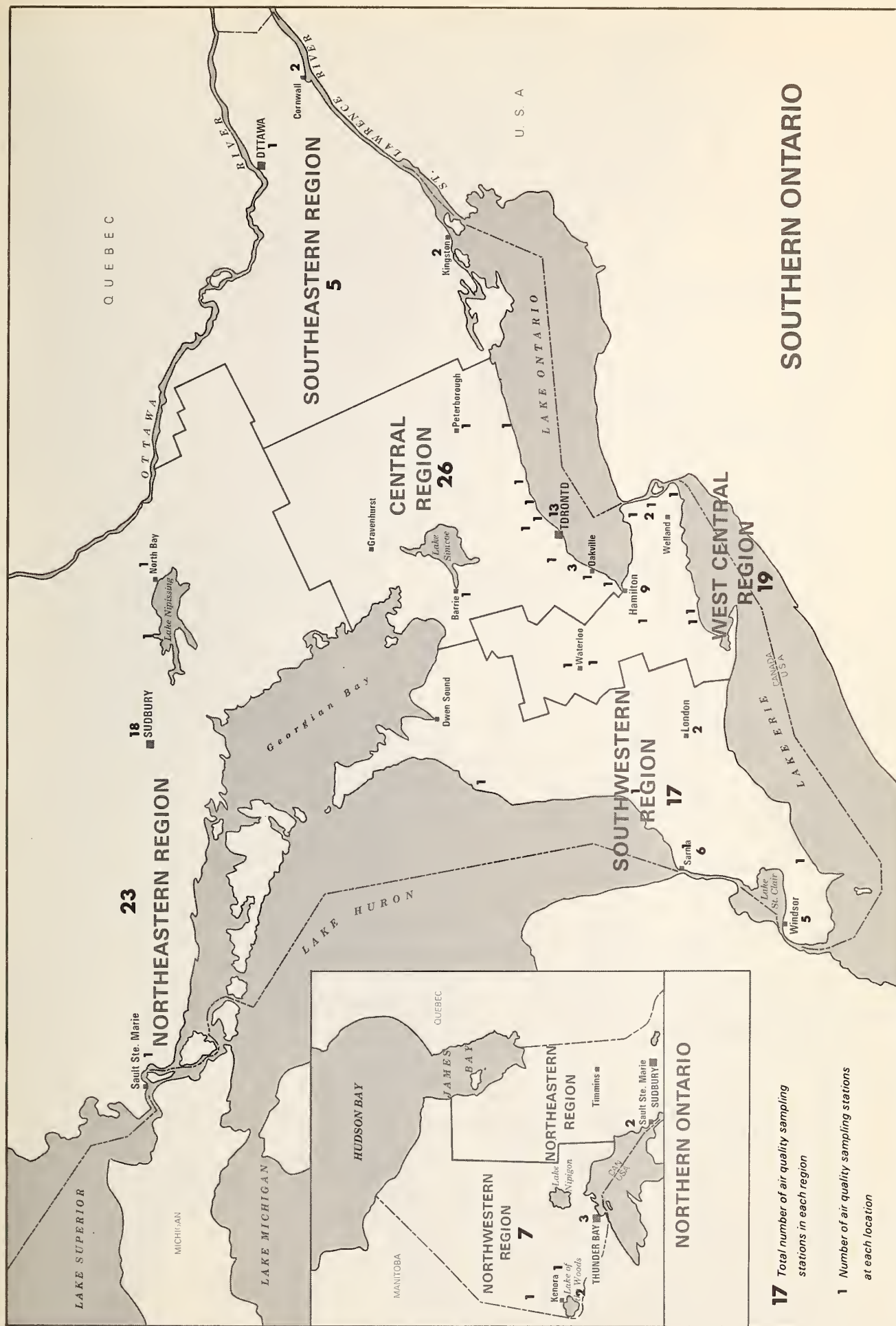
Date Started:	TORONTO	— MARCH 23, 1970	NIAGARA FALLS	— NOVEMBER 1, 1974
	HAMILTON	— JUNE 15, 1970	CONISTON	— FEBRUARY 18, 1975
	SUDBURY	— JANUARY 16, 1971	NEW SUDBURY	— MARCH 1, 1976
	WINDSOR	— MARCH 19, 1971	SARNIA	— DECEMBER 1, 1977
	HAPPY VALLEY	— MAY 13, 1971 (Closed Jan. 1975)	ST.CATHARINES	— SEPTEMBER 14, 1979
	WELLAND	— JANUARY 1, 1974 (Closed Oct. 1978)		

YEAR	CITY	NUMBER OF OCCASIONS		MAXIMUM INDEX	DATE OF MAXIMUM
		≥32	≥50		
1970	TORONTO	17	2	56	OCT. 8
	HAMILTON	2	1	56	OCT. 8
1971	TORONTO	19	1	52	APR. 13
	HAMILTON	23	NIL	48	OCT. 21
	SUDBURY	26	3	87	DEC. 11
	WINDSOR	2	NIL	33	NOV. 10
	HAPPY VALLEY	20	7	64	NOV. 21
1972	TORONTO	2	NIL	45	FEB. 13
	HAMILTON	6	NIL	41	FEB. 13
	SUDBURY	7	1	79	JUNE 12
	WINDSOR	9	1	53	JAN. 29
	HAPPY VALLEY	20	11	139	MAR. 23
1973	TORONTO	3	NIL	43	OCT. 24
	HAMILTON	2	NIL	34	FEB. 14
	SUDBURY	NIL	NIL	26	MAR. 14
	WINDSOR	7	NIL	44	FEB. 19
	HAPPY VALLEY	19	10	94	AUG. 21
1974	TORONTO	3	1	50	OCT. 29
	HAMILTON	11	NIL	44	OCT. 29
	SUDBURY	1	NIL	32	JULY 13
	WINDSOR	2	NIL	41	JAN. 7
	HAPPY VALLEY	24	13	116	APR. 23
	WELLAND	46	15	77	OCT. 6
	NIAGARA FALLS	NIL	NIL	20	NOV. 9
1975	TORONTO	2	1	62	NOV. 20
	HAMILTON	10	NIL	38	OCT. 24
	SUDBURY	NIL	NIL	30	FEB. 1
	WINDSOR	NIL	NIL	28	FEB. 11
	WELLAND	NIL	NIL	23	JAN. 24
	NIAGARA FALLS	NIL	NIL	21	NOV. 24
	CONISTON	NIL	NIL	30	MAY 13
1976	TORONTO	1	NIL	33	OCT. 3
	HAMILTON	8	NIL	41	DEC. 16
	SUDBURY	NIL	NIL	28	JUNE 6
	WINDSOR	1	NIL	34	DEC. 16
	WELLAND	NIL	NIL	24	DEC. 16
	NIAGARA FALLS	NIL	NIL	25	FEB. 21
	CONISTON	NIL	NIL	29	SEPT. 16
	NEW SUDBURY	NIL	NIL	29	APR. 2, 3 & JUNE 20
1977	TORONTO	4	NIL	36	JAN. 15
	HAMILTON	10	NIL	44	MAR. 12
	SUDBURY	NIL	NIL	24	JUNE 11
	WINDSOR (12008)	1	NIL	33	APR. 19
	WELLAND	NIL	NIL	22	JAN. 24, 25
	NIAGARA FALLS	NIL	NIL	28	FEB. 21
	CONISTON	NIL	NIL	25	APR. 25
	WINDSOR (12016)	NIL	NIL	29	APR. 19
	NEW SUDBURY	1	NIL	39	JUNE 11
	SARNIA	NIL	NIL	15	DEC. 13

Table 14/1979 — Continued . . .

Date Started:	TORONTO	— MARCH 23, 1970	NIAGARA FALLS	— NOVEMBER 1, 1974
	HAMILTON	— JUNE 15, 1970	CONISTON	— FEBRUARY 18, 1975
	SUDBURY	— JANUARY 16, 1971	NEW SUDBURY	— MARCH 1, 1976
	WINDSOR	— MARCH 19, 1971	SARNIA	— DECEMBER 1, 1977
	HAPPY VALLEY	— MAY 13, 1971 (Closed Jan. 1975)	ST.CATHARINES	— SEPTEMBER 14, 1979
	WELLAND	— JANUARY 1, 1974 (Closed Oct. 1978)		

YEAR	CITY	NUMBER OF OCCASIONS		MAXIMUM INDEX	DATE OF MAXIMUM
		≥32	≥50		
1978	TORONTO	2	NIL	45	NOV. 5
	HAMILTON	7	NIL	43	NOV. 4
	SUDBURY	NIL	NIL	31	JAN. 22
	WINDSOR (12008)	1	NIL	33	APR. 19
	WELLAND	NIL	NIL	24	MAR. 15
	NIAGARA FALLS	NIL	NIL	23	NOV. 4, MAR. 11
	CONISTON	3	NIL	34	FEB. 7
	WINDSOR (12016)	NIL	NIL	28	FEB. 18
	NEW SUDBURY	1	NIL	42	FEB. 2
	SARNIA	3	NIL	41	JAN. 24
1979	TORONTO	2	NIL	35	OCT. 18
	HAMILTON	23	1	55	DEC. 22
	SUDBURY	NIL	NIL	18	JULY 7
	WINDSOR (12008)	NIL	NIL	31	FEB. 20
	NIAGARA FALLS	NIL	NIL	27	FEB. 21
	CONISTON	NIL	NIL	31	FEB. 14
	WINDSOR (12016)	NIL	NIL	27	FEB. 21
	NEW SUDBURY	NIL	NIL	28	FEB. 14
	SARNIA	2	NIL	43	FEB. 20
	ST. CATHARINES	NIL	NIL	29	NOV. 6



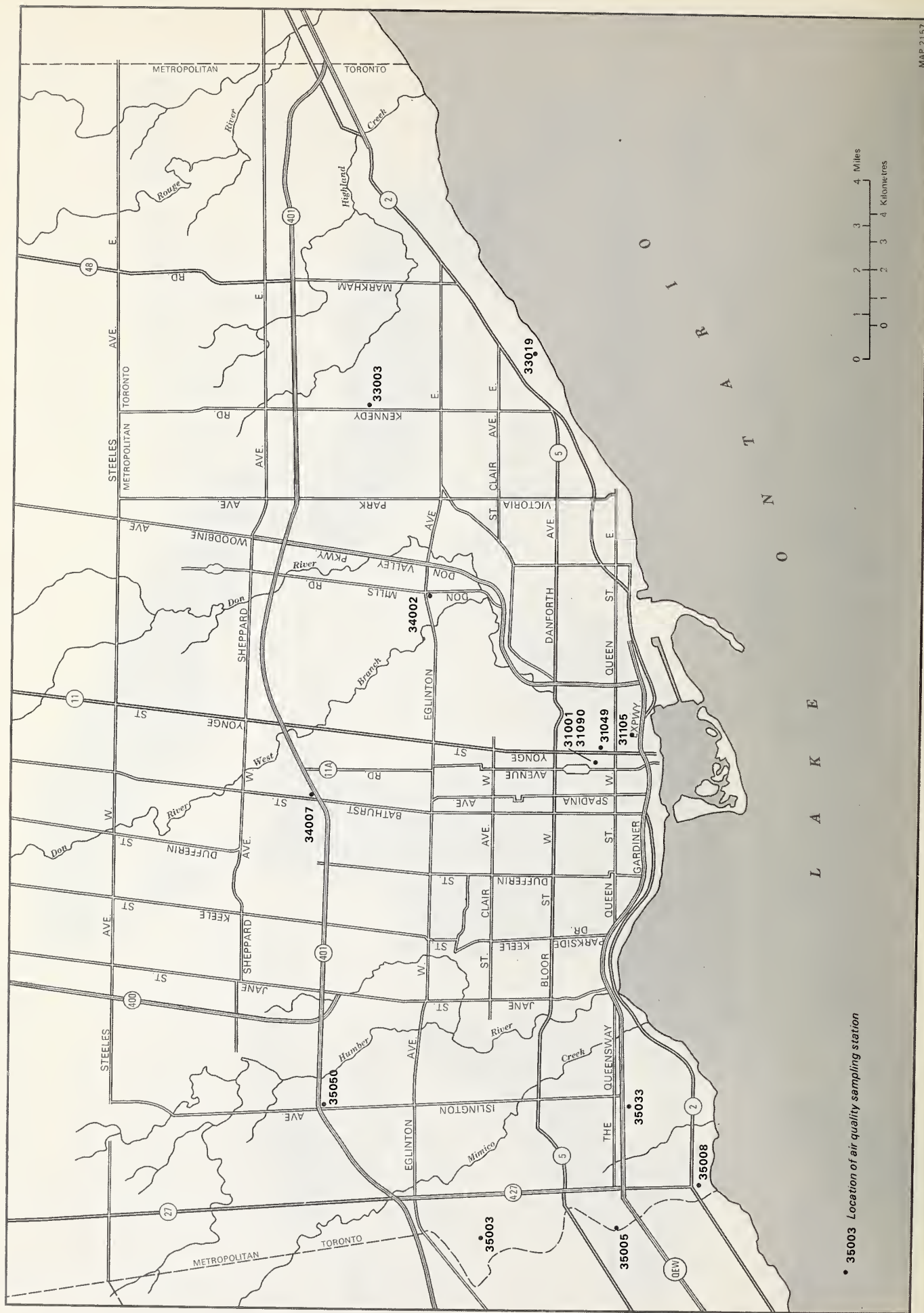


Figure 2. Locations of sampling stations in Metropolitan Toronto.



Figure 3. Locations of sampling stations in Hamilton.

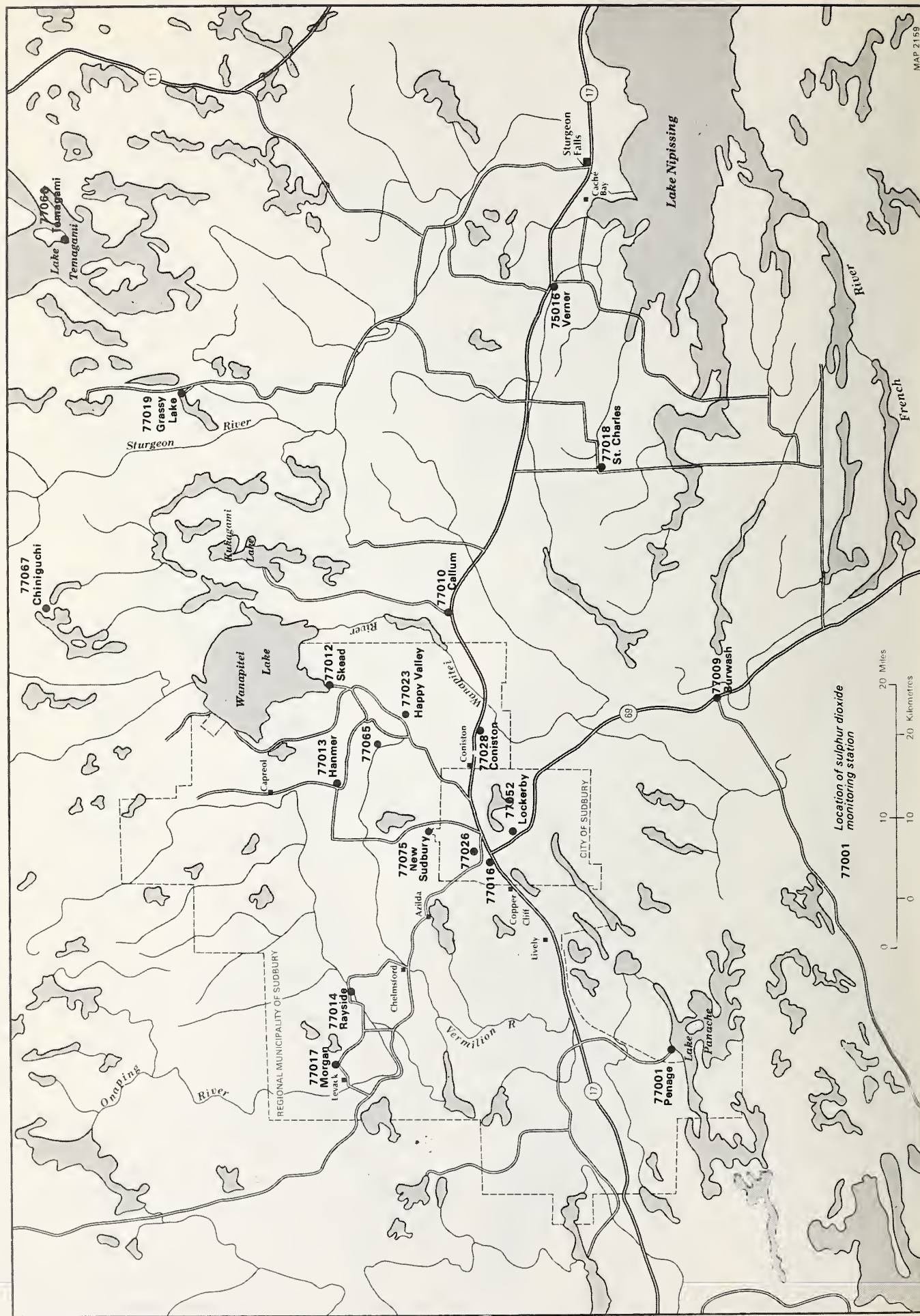


Figure 4. Locations of sulphur dioxide monitoring stations in the Sudbury area.

Date Due

	Ontario. Ministry of the Environment. Air Management Branch		
	Air quality monitoring report.		
	Ontario.	TD	
	1979 Vol.1	883.7	
		057	
	Oct 31		
DATE	ISSUED TO		

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